UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/819,304	03/28/2001	John Patrick McIntyre JR.	6208-018	4056

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EXAMINER
ALPERT, JAMES M

ART UNIT	PAPER NUMBER
3693	

DATE MAILED: 12/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
	09/819,304	MCINTYRE ET AL.
Office Action Summary	Examiner	Art Unit	
	James Alpert	3693	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>18 September 2006</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-40* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

The following communication is in response to Applicant's amendment filed on 18 September 2006.

Status of Claims

Claims 33 is original. Claims 1-32, 34-40 are currently amended. There are no new claims submitted, so therefore, Claims 1-40 are currently pending.

Response to Arguments

With regard to the claim objection made against Claim 13, Applicants amendments to the claim have overcome the objection, and the objection is withdrawn.

As to the rejections made under 35 U.S.C. 103, Applicants' arguments are not persuasive, as discussed below. Therefore, Claims 1-40 remain rejected, and Applicants' request for allowance is respectfully declined.

Claim Rejections - 35 USC § 103

The text of 35 U.S.C. §103, which is not included in this action, can be found in a prior Office action. Claim 1-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Michaud et al, U.S. Patent #6003018, in view of Rickets et al, U.S. Patent Application Publication #20050137963.

MPEP §714.02 requires that Applicants reply to every ground of rejection presented in an Office Action. In addition, this section mandates:

> The reply must present arguments pointing out the specific distinctions believed to render the claims, including any newly presented claims, patentable over any applied references.

The Examiner cites this portion of the MPEP because Applicants do not appear to contest the findings of the Examiner as it relates to the teachings of the Michaud

reference, other than its omission of an index. The Examiner reaches this conclusion because Applicants do not address any of the numerous limitations rejected under Michaud, other than to point out that the reference does not teach an index. Applicants then argue that that the reference cited to teach this missing limitation, Ricketts, only teaches a method for providing stock purchase indices that measure the participation rates of who is buying and selling stocks, rather than the value of what is being sold. The Examiner does not find this argument compelling. By way of explanation, the Examiner essentially relies on the primary reference to teach the statistical analysis performed in determine the residual variances, while relying on the secondary reference simply to demonstrate that an index can be formed based on the information gathered from the analysis. While the Examiner concurs that Rickets deals mainly with participation indices, it is important to note that Rickets actually teaches a performance based index in the section which describes related art. See Rickets, Para. 5. In fact, it would be safe to say that Rickets teaches indexing as very old and well known in the financial arts. The Examiner is satisfied that given the limited purpose of showing indexing, Rickets is a satisfactory reference. As to the dependent claims citing Rickets, the Examiner would point out that Rickets pertains to solving a similar problem as Applicants', which can be summarized simply as how to develop a representative index. The rejections under 35 U.S.C. are therefore maintained, and are detailed again in the subsequent pages.

With regard to Claims 1,21, Michaud teaches the method and program code

comprising:

a) assigning a covariance matrix composed of a variance for each of the instruments
and a correlation matrix to the universe; (Col. 5, line 37 – Col. 6, line 16)

b) removing one of the instruments from the universe; (Col. 3, lines 36-58)

c) calculating a residual variance for each of the instruments remaining in the universe;
(Col. 1, line 65 – Col. 2, line 8)

d) calculating a residual variance for the universe based on the residual variance for
each of the instruments and the correlation matrix; (Col. 1, line 65 – Col. 2, line 8)

e) reinstating the instrument into the universe; (Col. 5, lines 8-36)

f) repeating steps b-e for each instrument in the universe;   (Col. 5, lines 8-36)

g) inserting into the index the one of the instruments for which the residual variance of
the universe is minimized;   (Col. 5, line 37 – Col. 6, line 16)

h) eliminating from the universe the one of the instruments for which the residual
variance of the universe is minimized; and   (Col. 5, line 37 – Col. 6, line 16)

i) repeating steps b-h until the index is formed. (Col. 5, line 37 – Col. 6, line 16)

Michaud statistical analysis is based on selecting instruments in order to achieve

a portfolio reflective of an overall market. Although the principles are similar to those of

the applicant, it is clear that Michaud fails to teach an index per se. However, the of

selecting a representative index is old and well known, and is demonstrated by Rickets

at (Page 1, Para. 5) which discusses using statistical analysis of stocks, individually and

collectively, to form a subset index. As such, it would have been obvious to one of

ordinary skill in the art at the time applicant's invention was made to combine the

teachings of Michaud, related to selection of a portfolio of instruments based on residual

variance, with the teachings of Rickets, related to constructing a market index from statistical information. The motivation for such a combination is to give a macro-view of market movement to an individual to achieve micro-level investing. In this way, investors can make better informed decisions, leading to increased use in the system.

With regard to Claims 2,22, Michaud teaches the method and program code comprising:

calculating a variance for each of the instruments in the universe; and assigning a correlation value between a plurality of pairs of the instruments in the universe.
(Col. 1, lines 34-40)

With regard to Claims 3,23, Michaud teaches the method and program code wherein:

some of the instruments in the universe are associated with an entity and wherein the step of assigning a correlation value further comprises the step of: assigning a correlation value between each of the some of the instruments associated with the entity. (Col. 5, line 37 – Col. 6, line 16)

With regard to Claims 4,24, Michaud teaches the method and program code wherein:

the correlation value between each of the some of the instruments associated with the entity is identical. (Col. 5, line 37 – Col. 6, line 16)

With regard to Claims 5,25, Michaud does not expressly teach the method and program code wherein:

Some of the instruments in the universe are within a sector in a country and wherein the step of assigning a correlation value further comprises the step of:

assigning a correlation value between each of the some of the instruments within the sector in the country.

However, Ricketts teaches these limitations at (Para. 80, Para. 123). It would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to combine the teachings of Michaud, related to selection of a portfolio of instruments based on residual variance, with the teachings of Rickets, related to assigning a correlation value between each of the some of the instruments within the sector in the country. The motivation for such a combination is to give a macro-view of market movement to an individual to achieve micro-level investing. In this way, the investors can make better informed decisions, leading to increased use in the system.

With regard to Claims 6,26, Michaud does not expressly teach the method and program code wherein:

the correlation value between each of the some of the instruments within the sector in the country is identical.

However, Ricketts teaches this limitation at (Para. 80, Para. 123). The references can be combined under the same motivation as with claims 5,25.

With regard to Claims 7-8, 27-28 Michaud does not expressly teach the method and program code wherein:

some of the instruments in the universe are within a first sector and some of the instruments in the universe are within a second sector and wherein the step of assigning a correlation value further comprises the step of:

assigning a correlation value between each of the some of the instruments within the first sector and each of the some of the instruments within the second sector; and

the correlation value between each of the some of the instruments within the first sector and each of the some of the instruments within the second sector is identical.

However, Ricketts teaches these limitations at (Para. 80, Para. 123). The references can be combined under the same motivation as with claims 5,25.

With regard to Claims 9-12,29-32, Michaud does not expressly teach the method and program code wherein instruments are associated with various companies, sectors, and countries in any combination. However, as discussed above, Ricketts teaches adjusting the index according to these very factors at (Para. 80, Para. 123). Also as discussed above, the motivation to combine the references exists in that a macro-view of market movement is available to an individual to achieve micro-level investing.

With regard to Claims 13,33, Michaud does not expressly teach the method and program code reflected in the equation presented in this claim. However it would be an obvious modification to the statistical analysis presented in Michaud to further calculate the residual variance as described in the equation. The motivation for modifying Michaud is simply to achieve the most statistically complete indexing as possible.

With regard to Claims 14,34, Michaud teaches the method and program code wherein:

the index is formed when a predetermined number of instruments in the universe are inserted into the index.   (Col. 5, line 37 – Col. 6, line 16)

With regard to Claims 15,35, Michaud teaches the method and program code wherein:

the index is formed when a predetermined percentage of the instruments in the universe are inserted into the index.   (Col. 5, line 37 – Col. 6, line 16)

With regard to Claims 16,36, Michaud teaches the method and program code

wherein:

the predetermined percentage is a percentage of the universe of N instruments on a
weighted basis. (Col. 5, line 37 – Col. 6, line 16)

With regard to Claims 17,37, the examiner is treating the dv01 value to simply

be a the expected correlation value, and as such Michaud teaches the method and

program code comprising:

calculating an original dv01 of the universe before the removing one of the instruments,
wherein residual variance is minimized includes, and calculating a remaining dv01 of
the universe wherein the index is formed when the remaining dv01 of the universe is a
predetermined percentage of the original dv01 of the universe.
(Col. 5, line 37 – Col. 6, line 16)

With regard to Claims 18-20 and 38-40, Michaud does not expressly teach the

method and program code wherein the instruments are fixed income instruments,

equities, or FX securities.

However, these instruments are old and well known in the finance arts, and as

such the examiner takes official notice that an index would be comprised of these

instruments. Further, it would have been obvious to one of ordinary skill in the art to

modify Michaud to include specific instruments in the indexing. The motivation for such

a modification is simply to include the major instruments in order to ensure investors

that the indexing is thorough and complete.

MPEP § 2144.03(C) states, in respect to an Examiner's use of Official Notice:

To adequately traverse such a finding, an applicant must specifically point out the supposed
errors in the examiner's action, which would include stating why the noticed fact is not considered
to be common knowledge or well-known in the art. See 37 CFR 1.111(b).

The same section continues:

> If applicant does not traverse the examiner's assertion of official notice or applicant's traverse is not adequate, the examiner should clearly indicate in the next Office action that the common knowledge or well-known in the art statement is taken to be admitted prior art because applicant either failed to traverse the examiner's assertion of official notice or that the traverse was inadequate. If the traverse was inadequate, the examiner should include an explanation as to why it was inadequate.

Applicant has not traversed the Examiner's use of Official Notice. Therefore, the Examiner is now obligated to consider as admitted prior art, the elements of Claims 18-20 and 38-40.
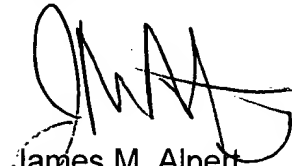
Conclusion

THIS ACTION IS FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Alpert whose telephone number is (571) 272-6738. The examiner can normally be reached on M-F 9:30-6:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Trammel, can be reached on (571) 272-6712. The fax phone number for the organization where this application or

proceeding is assigned is (703) 872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197. Respectfully,

James M. Alpert
November 20, 2006

ELLA COLBERT
PRIMARY EXAMINER